



Page 1 of 2

TECH CENTER 16002900
MAY 08 2002

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1522.0010004/MACAPPLICATION NO.
10/023,033APPLICANT
Harrington et al.FILING DATE
December 21, 2001GROUP
To be assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
mm	AA1	5,869,294	02/09/99	Harrington et al.	435	91.1	09/20/98
mm	AB1	5,695,967	12/09/97	Van Bokkelen et al.	435	91.1	06/27/95
mm	AC1	5,288,625	02/22/94	Hadlaczy	435	172.2	09/13/91
mm	AD1	5,242,808	09/07/93	Maugh et al.	435	69.1	01/23/91
mm	AE1	5,202,256	04/13/93	Maugh et al.	435	252.3	08/16/91
mm	AF1	5,202,236	04/13/93	Maugh et al.	435	69.1	05/25/90
mm	AG1	5,149,657	09/22/92	Maugh et al.	435	320.1	02/08/91
mm	AH1	5,049,504	09/17/91	Maugh et al.	435	252.33	05/30/90
mm	AI1	4,889,806	12/26/89	Olson et al.	435	172.3	04/15/87
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
mm	AL1	WO 96/40265 A1	12/19/96	PCT			Yes No
mm	AM1	WO 95/32297 A1	11/30/95	PCT			Yes No
mm	AN1	EP 0 532 050 A2	03/17/93	Europe			Yes No
mm	AO1	WO 92/07080 A1	04/30/92	PCT			Yes No
mm	AP1	WO 91/07496 A1	05/30/91	PCT			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	1	Aladjem, M.I. et al., "Genetic Dissection of a Mammalian Replicator in the Human β -Globin Locus," <i>Science</i> 281:1005-1009, American Association for the Advancement of Science (August 1998).
mm	AS	1	Altman, A.L. and Fanning, E., "The Chinese Hamster Dihydrofolate Reductase Replication Origin Beta Is Active at Multiple Ectopic Chromosomal Locations and Requires Specific DNA Sequence Elements for Activity," <i>Mol. Cell. Biol.</i> 21:1098-1110, American Society for Microbiology (February 2001).
mm	AT	1	Brown, W.R.A., "Mammalian artificial chromosomes," <i>Curr. Opin. Genet. Devel.</i> 2:479-486, Current Biology, Ltd. (1992).

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1522.0010004/MAC

APPLICATION NO.
10/023,033

APPLICANT
Harrington et al.

FILING DATE
December 21, 2001

GROUP
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUP- CLASS	TRANSLATION
mm	AL2	FR 2 593 827	08/07/87	France			Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	2	Brown, K.E. et al., "Dissecting the centromere of the human Y chromosome with cloned telomeric DNA," <i>Hum. Mol. Genet.</i> 3:1227-1237, Oxford University Press (August 1994).
mm	AS	2	Brown, W. et al., "Mammalian artificial chromosomes," <i>Curr. Opin. Genet. Devel.</i> 6:281-288, Current Biology Ltd. (June 1996).
mm	AT	2	Brutlag, D. et al., "Synthesis of Hybrid Bacterial Plasmids Containing Highly Repeated Satellite DNA," <i>Cell</i> 10:509-519, MIT (1977).

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DATE CONSIDERED 7/21/04

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INFORMATION DISCLOSURE STATEMENT

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10/023,033APPLICANT
Harrington et al.FILING DATE
December 21, 2001GROUP
~~To be assigned~~ 1636

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	3	Carroll, S.M. et al., "Localization of a Bidirectional DNA Replication Origin in the Native Locus and in Episomally Amplified Murine Adenosine Deaminase Loci," Mol. Cell. Biol. 13:2971-2981, American Society for Microbiology (1993).
mm	AS	3	Cossons, N. et al., "Circular YAC Vectors Containing a Small Mammalian Origin Sequence Can Associate With the Nuclear Matrix," J. Cell. Biochem. 67:439-450, Wiley-Liss, Inc. (December 1997).
mm	AT	3	DePamphilis, M.L., "Eukaryotic DNA Replication: Anatomy of An Origin," Annu. Rev. Biochem. 62:29-63, Annual Reviews Inc. (1993).

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DATE CONSIDERED 2/21/04

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FORM PTO-1449

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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

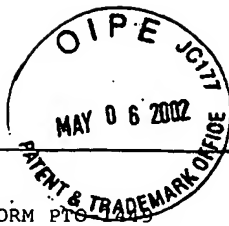
mm	AR	4	DePamphilis, M.L., "Replication origins in metazoan chromosomes: fact or fiction," <i>BioEssays</i> 21:5-16, John Wiley & Sons, Inc. (January 1999).
mm	AS	4	Farr, C. et al., "Functional reintroduction of human telomeres into mammalian cells," <i>Proc. Natl. Acad. Sci. USA</i> 88:7006-7010, The National Academy of Sciences (1991).
mm	AT	4	Françon, P. et al., "Initiation of DNA replication in eukaryotes: questioning the origin," <i>FEBS Lett.</i> 452:87-91, Federation of European Biochemical Societies (June 1999).

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DATE CONSIDERED 7/21/09

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-100

INFORMATION DISCLOSURE STATEMENT

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1522.0010004/MACAPPLICATION NO.
10/023,033APPLICANT
Harrington et al.FILING DATE
December 21, 2001GROUP
To be assigned 1636

U.S. PATENT DOCUMENTS

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	5	Ge, Y. et al., "Sequence, Higher Order Repeat Structure, and Long-Range Organization of Alpha Satellite DNA Specific to Human Chromosome 8," <i>Genomics</i> 13:585-593, Academic Press, Inc. (1992).
mm	AS	5	Grimes, B. and Cooke, H., "Engineering mammalian chromosomes," <i>Hum. Mol. Genet.</i> 7:1635-1640, Oxford University Press (September 1998).
mm	AT	5	Haaf, T. et al., "Integration of Human α -Satellite DNA into Simian Chromosomes: Centromere Protein Binding and Disruption of Normal Chromosome Segregation," <i>Cell</i> 70:681-696, Cell Press (1992).

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DATE CONSIDERED 7/21/04

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1522.0010004/MAC

APPLICATION NO.
10/023,033

APPLICANT
Harrington et al.

FILING DATE
December 21, 2001

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To be assigned 1030

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
							Yes No
							Yes No
							Yes No
							Yes No
							Yes No
							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AI	6	Hadlaczky, G. et al., "Centromere formation in mouse cells concransformed with human DNA and a dominant marker gene," <i>Proc. Natl. Acad. Sci. USA</i> 88:8106-8110, The National Academy of Sciences (1991).
mm	AS	6	Harrington, J.J. et al., "Formation of de novo centromeres and construction of first-generation human artificial microchromosomes," <i>Nature Genet.</i> 15:345-355, Nature America, Inc. (April 1997).
mm	AV	6	Hartley, J.L and Gregori, T.J., "Cloning multiple copies of a DNA segment," <i>Gene</i> 13:347-353, Elsevier/North-Holland Biomedical Press (1981).

EXAMINER mm DATE CONSIDERED 7/21/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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FORM PTO-1177
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1522.0010004/MACAPPLICATION NO.
10/023,033APPLICANT
Harrington et al.FILING DATE
December 21, 2001GROUP
To be assigned 1636

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	7	Heinzel, S.S. et al., "Autonomous DNA Replication in Human Cells Is Affected by the Size and the Source of the DNA," Mol. Cell. Biol. 11:2263-2272, American Society for Microbiology (1991).
mm	AS	7	Henning, K.A. et al., "Human artificial chromosomes generated by modification of a yeast artificial chromosome containing both human alpha satellite and single-copy DNA sequences," Proc. Natl. Acad. Sci. USA 96:592-597, The National Academy of Sciences (January 1999).
mm	AT	7	Hofer, B., "Construction and stability of a sixfold repeated artificial gene," Eur. J. Biochem. 167:307-313, FEBS (1987).

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DATE CONSIDERED 7/21/04

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MAY 08 2002

FORM PTO-
INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1522.0010004/MACAPPLICATION NO.
10/023,033APPLICANT
Harrington et al.FILING DATE
December 21, 2001GROUP
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~~To be assigned~~

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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							Yes No
							Yes No
							Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<i>mm</i>	AP	8	Hosoda, F. et al., "An F factor based cloning system for large DNA fragments," Nucl. Acids Res. 18:3863-3869, Oxford University Press (1990).
<i>mm</i>	AS	8	Huxley, C., "Mammalian artificial chromosomes: a new tool for gene therapy," Gene Ther. 1:7-12, Macmillan Press (1994).
<i>mm</i>	AT	8	Huxley, C. et al., "Ordering Up Big MACs," Bio/Technol. 12:586-590, Nature Publishing Company (1994).

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*M. Harris*DATE CONSIDERED *7/2/01*

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

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1522.0010004/MACAPPLICATION NO.
10/023,033APPLICANT
Harrington et al.FILING DATE
December 21, 2001GROUP 1636
~~To be assigned~~

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

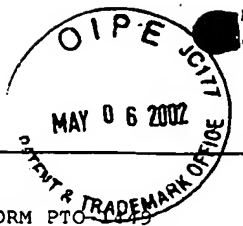
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

<u>mm</u>	AR	<u>9</u>	Hwang, E.S. and Scoocca, J.J., "A Method of Cloning Multiple Direct Repeats of a DNA Segment," <i>BioTechniques</i> 14:766-767, Eaton Publishing Co. (1993).
<u>mm</u>	AS	<u>9</u>	Ikeno, M. et al., "Construction of YAC-based mammalian artificial chromosomes," <i>Nature Biotechnol.</i> 16:431-439, Nature Publishing Co. (May 1998).
<u>mm</u>	AT	<u>9</u>	Kellogg, D.R. et al., "The Centrosome and Cellular Organization," <i>Annu. Rev. Biochem.</i> 63:639-674, Annual Reviews Inc. (1994).

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M. MarchDATE CONSIDERED 7/21/04

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FORM PTO-101 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1522.0010004/MAC	APPLICATION NO. 10/023,033
	APPLICANT Harrington et al.	
	FILING DATE December 21, 2001	GROUP To be assigned 1636

U.S. PATENT DOCUMENTS

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	10	Kelly, R.E. et al., "Identification of an Origin of Bidirectional DNA Replication in the Ubiquitously Expressed Mammalian CAD Gene," <i>Mol. Cell. Biol.</i> 15:4136-4148, American Society for Microbiology (August 1995).
mm	AS	10	Kobayashi, T. et al., "Identification of Primary Initiation Sites for DNA Replication in the Hamster Dihydrofolate Reductase Gene Initiation Zone," <i>Mol. Cell Biol.</i> 18:3266-3277, (June 1998).
mm	AT	10	Kovacic, R.T. et al., "Protection of megabase DNA from shearing," <i>Nucl. Acids Res.</i> 23:3999-4000, Oxford University Press (October 1995).

EXAMINER <i>M. Marsh</i>	DATE CONSIDERED 7/21/04
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM 1

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1522.0010004/MAC

APPLICATION NO.
10/023,033

APPLICANT
Harrington et al.

FILING DATE
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U.S. PATENT DOCUMENTS

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	11	Krysan, P.J. et al., "Isolation of Human Sequences That Replicate Autonomously in Human Cells," Mol. Cell. Biol. 9:1026-1033, American Society for Microbiology (1989).
mm	AS	11	Larin, Z. et al., "De novo formation of several features of a centromere following introduction of a Y alphoid YAC into mammalian cells," Hum. Mol. Genet. 3:689-695, Oxford University Press (1994).
mm	AT	11	Leonhardt, H. and Alonso, J.C., "Parameters affecting plasmid stability in Bacillus Subtilis," Gene 103:107-111, Elsevier Science B.V. (1991).

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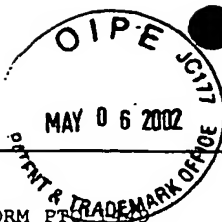
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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	12	Malott, M. and Leffak, M., "Activity of the c-myc Replicator at an Ectopic Chromosomal Location," <i>Mol. Cell. Biol.</i> 19:5685-5695, American Society for Microbiology (August 1999).
mm	AS	12	Monaco, A.P. and Larin, Z., "YACs, BACs, PACs and MACs: artificial chromosomes as research tools," <i>Trends Biotechnol.</i> 12:280-286, Elsevier Science Ltd. (1994).
mm	AT	12	Neil, D.L. et al., "Structural instability of human tandemly repeated DNA sequences cloned in yeast artificial chromosome vectors," <i>Nucl. Acids Res.</i> 18:1421-1428, Oxford University Press (1990).

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M. M. M. M. M.

DATE CONSIDERED 7/26/09

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FORM PTO-1449

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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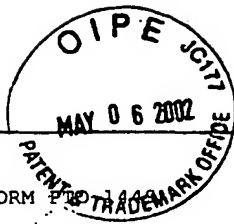
mm	AR	13	Nielson, T.O. et al., "Circular YAC Vectors Containing Short Mammalian Origin Sequences Are Maintained Under Selection as HeLa Episomes," <i>J. Cell. Biochem.</i> 76:674-685, Wiley-Liss, Inc. (January 2000).
mm	AS	13	Nonet, G.H. and Wahl, G.M., "Introduction of YACs Containing a Putative Mammalian Replication Origin into Mammalian Cells Can Generate Structures that Replicate Autonomously," <i>Somat. Cell Mol. Genet.</i> 19:171-192, Plenum Publishing Corporation (1993).
mm	AT	13	Oakey, R. and Tyler-Smith, C., "Y Chromosome DNA Haplotyping Suggests That Most European and Asian Men Are Descended from One of Two Males," <i>Genomics</i> 7:325-330, Academic Press, Inc. (1990).

EXAMINER

M. Harich

DATE CONSIDERED 7/21/04

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FORM PTO-100

INFORMATION DISCLOSURE STATEMENT

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	AL						Yes No
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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

mm	AR	14	O'Connor, M. et al., "Construction of Large DNA Segments in <i>Escherichia coli</i> ," <i>Science</i> 244:1307-1312, American Association for the Advancement of Science (1989).
mm	AS	14	Orkin, S.H. and Motulsky, A.G., "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy," issued by the National Institutes of Health (December 1995).
mm	AT	14	Pan, A. et al., "Construction of multiple copy of α -domain gene fragment of human liver metallothionein I _A in tandem arrays and its expression in transgenic tobacco plants," <i>Protein Engin.</i> 6:755-762, Oxford University Press (1993).

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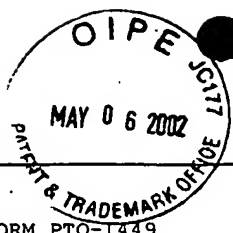
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mm	AS	15	Sambrook, J. et al. in: <i>Molecular Cloning, A Laboratory Manual</i> , 2 nd ed., Cold Spring Harbor Press, pp 1.53-1.59 (1989).
mm	AT	15	Schalkwyk, L.C. et al., "Techniques in mammalian genome mapping," <i>Curr. Opin. Biotech.</i> 6:37-43, Current Biology Ltd. (January 1995).

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mm	AS	25	Schindelbauer, D. and Cooke, H.J., "Efficient combination of large DNA <i>in vitro</i> : in gel site specific recombination (IGSSR) of PAC fragments containing α satellite DNA and the human HPRT gene locus," <i>Nucl. Acids Res.</i> 25:2241-2243, Oxford University Press. (June 1997).
mm	AS	25	Shaw, D., "Artificial chromosomes: a blueprint for the future," <i>Biologist</i> 47:11-14, Institute of Biology (February 2000).
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mm	AR	17	Sinden, R.R. et al., "On the Deletion of Inverted Repeated DNA in <i>Escherichia coli</i> : Effects of Length, Thermal Stability, and Cruciform Formation in Vivo," <i>Genetics</i> 129:991-1005, Genetics Society of America (1991).
mm	AS	17	Taylor, S.S. et al., "Addition of functional human telomers to YACs," <i>Hum. Mol. Genet.</i> 3:1383-1386, Oxford University Press (August 1994).
mm	AT	17	Taylor, W.H. and Hagerman, P.J., "A general method for cloning DNA fragments in multiple copies," <i>Gene</i> 53:139-144, Elsevier Science Publishers B.V. (1987).

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mm	AS	12	Waye, J.S. and Willard, H.F., "Nucleotide sequence heterogeneity of alpha satellite repetitive DNA: a survey of alphoid sequences from different human chromosomes," <i>Nucl. Acids. Res.</i> 15:7549-7569, IRL Press Limited (1987).
mm	AT	15	Waye, J.S. and Willard, H.F., "Structure, Organization, and Sequence of Alpha Satellite DNA from Human Chromosome 17: Evidence for Evolution by Unequal Crossing-Over and an Ancestral Pentamer Repeat Shared with the Human X Chromosome," <i>Mol. Cell. Biol.</i> 6:3156-3165 (1986).

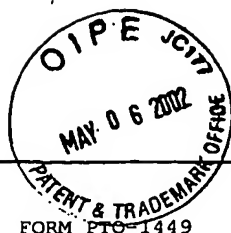
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mm	AT	19	Willard, H.F. et al., "Human Centromere Structure: Organization and Potential Role of Alpha Satellite DNA," in <i>Mechanisms of Chromosome Distribution and Aneuploidy</i> , Resnick, M.A. and Vig, B.K., Eds., Alan R. Liss, Inc., New York, NY, p. 9-18 (1989).

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<i>mm</i>	AR	20	Willard, H.F., "Centromeres of mammalian chromosomes," TIG 6:410-415, Elsevier Science Publishers Ltd. (1990).
<i>mm</i>	AS	20	Willard, H.F. and Davies, K.E., "Mammalian genetics. Editorial overview: a sampler of current opinion," Curr. Opin. Genet. Devel. 3:387-389, Current Biology Ltd. (1993).
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